

Pierce Marsh Restoration Project

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Most marsh creation/restoration projects to date within Galveston Bay have consisted of the revegetation of shorelines with suitable elevations or with the beneficial use of dredge material. Examples of these types of projects exist around Galveston Bay, from the United States Department of Agriculture's and Extension Service's early shoreline restoration on the north shore of East Bay, to the Port of Houston Authority's Demonstration Marsh at Atkinson Island in upper Galveston Bay, and the Houston Lighting & Power Company restoration project on Clear Creek. In 1999, many more restoration projects will occur around the Bay and several of these projects will employ a new technique to marsh restoration in Galveston Bay.

The Pierce Marsh Project will apply the technique of the creation of levees or terraces from in-situ material and subsequent planting of the terraces with smooth cordgrass, *Spartina alterniflora*. The Pierce Marsh Project will restore approximately 57 total acres of marsh and submerged aquatic vegetation habitat in Basford Lake, Galveston County, Texas. This marsh restoration technique was adapted from a successful application at the Sabine National Wildlife Refuge performed by the Louisiana Department of Natural Resources. This technique will be utilized in several other local projects including the Galveston Island State Park Restoration, and the Texas Parks and Wildlife Department Jumbile Cove Restoration project.

For the terracing technique to be successful, certain physical requirements are needed. Bottom soil must be a firm clay mixture to ensure that it can be packed, shaped and stabilized, and the terracing area must be shallow, and relatively protected. Basford Lake was once entirely salt marsh adjacent to Basford Bayou, with many channels woven into the pattern of marsh. Local subsidence has altered the area, and with the acquisition of the tract of land by The Nature Conservancy of Texas and the Galveston Bay Foundation, the area is a prime candidate for restoration.

The Foundation expects the construction of the terraces to be completed in early spring. Planting of the terraces by volunteer groups will begin immediately after settling has occurred and the water temperature is suitable for restoration and volunteer participation.